

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires July 31, 2010

APPLICATION FOR PERMIT TO DRILL OR REENTER

OCDBS OCD

APR 11 2013

RECEIVED

1a. Type of Work ☒ DRILL ☐ REENTER

1b. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone

2. Name of Operator
EOG Resources Inc.

3a. Address
P.O. Box 2267 Midland, Texas 79702

3b. Phone No. (include area code)
432-686-3689

4. Location of Well (Report location clearly and in accordance with any State requirements)*
At surface 170' FSL & 1200' FWL, SWSW, Sec 11, T25S, R33E
At proposed prod. zone 230' FSL & 1200' FWL, SWSW, Sec 14, T25S, R33E

5. Lease Serial No.
NMNM124212 SHL, NMNM108503 BHL

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

8. Lease Name and Well No.
Vaca 11 Fed Com 1H

9. API Well No.
30-025-41098

10. Field and Pool, or Exploratory
Red Hills; BONE SPRING UPPER

11. Sec., T., R., M., or Blk. and Survey or Area
Sec 11, T25S, R33E

14. Distance in miles and direction from nearest town or post office*

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any)
170

16. No. of Acres in lease
1520

17. Spacing Unit dedicated to this well
160

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
671' to Vaca 14-5H

19. Proposed Depth
14474 MD, 9418 TVD

20. BLM/BIA Bond No. on file
NM 2308

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3369' GL

22. Approximate date work will start*
7/15/2013

23. Estimated duration
25 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, must be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification.
- Such other site specific information and/or plans as may be required by the BLM

25. Signature
Stan Wagner

Name (Printed/Typed)
Stan Wagner

Date
2/8/13

Title
Regulatory Analyst

Approved by (Signature)
James A. Amos

Name (Printed/Typed)
James A. Amos

Date
APR - 5 2013

Title
FIELD MANAGER

Office
CARLSBAD FIELD OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

*(Instructions on page 2)

Carlsbad Controlled Water Basin

KE 04/12/13

Approval Subject to General Requirements
& Special Stipulations Attached

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

APR 15 2013

EOG RESOURCES, INC.
VACA 11 FED COM NO. 1H

Cementing Program:

Depth	No. Sacks	Wt. lb/gal	Yld Ft ³ /ft	Slurry Description
1,225' 13 3/8"	600	13.5	1.73	Lead: Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% CaCl ₂ + 0.25 lb/sk Cello-Flake (TOC @ surface)
	300	14.8	1.34	Tail: Class C + 0.005 pps Static Free + 1% CaCl ₂ + 0.25 pps CelloFlake + 0.005 gps FP-6L
4,950' 9 5/8"	1100	12.7	2.22	Lead: Class 'C' + 1.50% R-3 + 0.25 lb/sk Cello-Flake + 2.0% Sodium Metasilicate + 10% Salt + 0.005 lb/sk Static Free (TOC @ surface)
	200	14.8	1.32	Tail: Class 'C' + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
14,474' 5 1/2"	375	10.8	3.68	Lead: 60:40:0 Class 'C' + 15.00 lb/sk BA-90 + 4.00% MPA-5 + 3.00% SMS + 5.00% A-10 + 1.00% BA-10A + 0.80% ASA-301 + 2.90% R-21 + 8.00 lb/sk LCM-1 + 0.005 lb/sk Static Free (TOC @ 4450')
	400	11.8	2.38	Middle: 50:50:10 Class 'H' + 0.80% FL-52 + 0.45% ASA-301 + 0.40% SMS + 2.00% Salt + 3.00 lb/sx LCM-1 + 0.20% R-21 + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
	1300	14.2	1.28	Tail: 50:50:2 Class 'H' + 0.65% FL-52 + 0.20% CD-32 + 0.15% SMS + 2.00% Salt + 0.10% R-3 + 0.005 lb/sk Static Free

Note: Cement volumes based on bit size plus at least 25% excess in the open hole plus 10% excess in the cased-hole overlap section.

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

Variance is requested to use a co-flex line between the BOP and choke manifold (instead of using a 4" OD steel line).

The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a double ram-type (10,000 psi WP) preventer and an annular preventer (5000-psi WP). Both units will be hydraulically operated and the ram-type will be equipped with blind rams on bottom and drill pipe rams on top. All BOPE will be tested in accordance with Onshore Oil & Gas order No. 2.

3000 psi BOPE is adequate for this application. Due to the 3000 psi BOPE requirement no FIT tests are planned.

Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 2000/ 250 psig and the annular preventer to 2000/ 250 psig. The surface casing will be tested to 1500 psi for 30 minutes.

EOG RESOURCES, INC.
VACA 11 FED COM NO. 1H

Before drilling out of the intermediate casing, the ram-type BOP and accessory equipment will be tested to 3000/ 250 psig and the annular preventer to 3000/ 250 psig. The intermediate casing will be tested to 2000 psi for 30 minutes.

Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

A hydraulically operated choke will be installed prior to drilling out of the intermediate casing shoe.

6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM:

The applicable depths and properties of the drilling fluid systems are as follows. Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,225'	Fresh Water Gel	8.6-8.8	28-34	N/c
1,225' – 4,950'	Saturated Brine	10.0-10.2	28-34	N/c
4,950' – 8,982'	Cut Brine Water	8.5-9.3	28-34	N/c
8,982' – 14,474' Lateral	Cut Brine Water	9.0-9.5	28-34	N/c

An electronic pit volume totalizer (PVT) will be utilized on the circulating system, to monitor pit volume, flow rate, pump pressure and stroke rate.

7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:

- (A) A kelly cock will be kept in the drill string at all times.
- (B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.
- (C) H₂S monitoring and detection equipment will be utilized from surface casing point to TD.

8. LOGGING, TESTING AND CORING PROGRAM:

Open-hole logs are not planned for this well.

GR-CCL Will be run in cased hole during completions phase of operations, from kick off point to intermediate casing point.

see COB

EOG RESOURCES, INC.
VACA 11 FED COM NO. 1H

**9. ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES AND
POTENTIAL HAZARDS:**

The estimated bottom-hole temperature (BHT) at TD is 155 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 4096 psig. No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. No major loss circulation zones have been reported in offsetting wells.

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

The drilling operation should be finished in approximately one month. If the well is productive, an additional 60-90 days will be required for completion and testing before a decision is made to install permanent facilities.

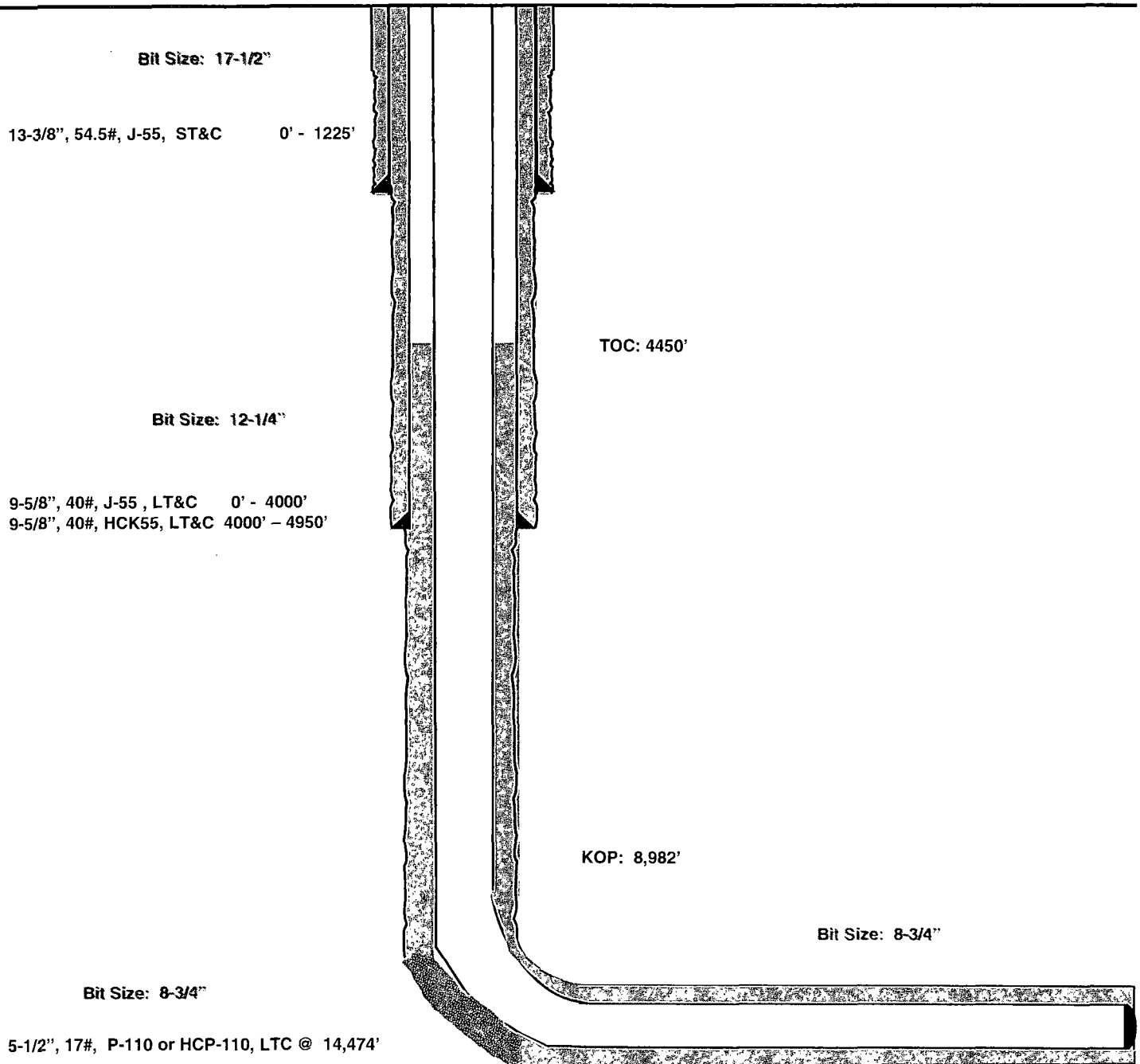
Vaca 11 Fed Com #1H
Red Hills
Lea County, New Mexico

170' FSL
1200' FWL
Section 11
T-25-S, R-33-E

Proposed Wellbore

API: 30-025- *****

KB: 3,399'
GL: 3,369'



Lateral: 14,474' MD, 9,418' TVD

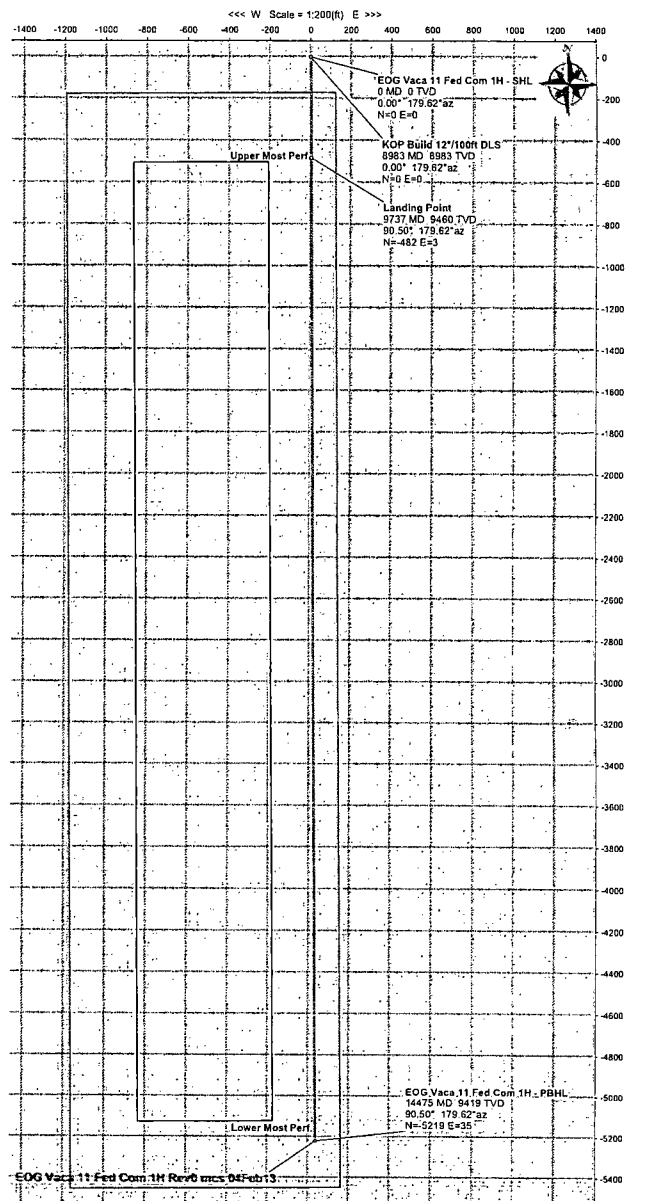
BH Location: 230' FSL & 1200' FWL
Section 14
T-25-S, R-33-E

WELL	Vaca 11 Fed Com 1H	FIELD	Lea County, NM (NAD 27)	STRUCTURE	Cactus 123
Magnetic Parameters	Model: BIGGM 2012	Dip: 60.82°	Date: February 04, 2013	Surface Location	Lat: N 32 8 17.323
	Mag Dec: 7.470°	FS: 83384 3eT		Lon: W 103 32 50.297	Northing: 414867.00 DLS
					Easting: 743302.00 DLS
					Scale Factor: 0.9997609
Structure Name	Vaca 11 Fed Com 1H				
Plan:	Rev0 mcs 04Feb13				
TVD Ref:	KOP(3996) above 1				
Srvy Date:	February 04, 2013				

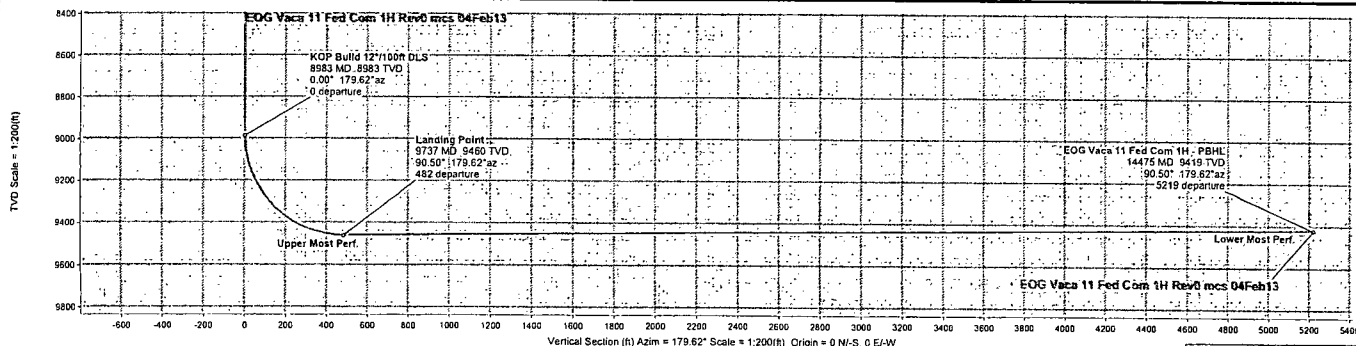
Legend

EOG Vaca 11 Fed Com 1H Upper Most Perf
EOG Vaca 11 Fed Com 1H Lower Most Perf
EOG Vaca 11 Fed Com 1H Landing Point
EOG Vaca 11 Fed Com 1H KOP Build 12"/100ft DLS
EOG Vaca 11 Fed Com 1H SHL

Grid North
Tot Corr (M→G 7.0514°)
Mag Dec (7.470°)
Grid Conv (0.418°)



Comments	Survey MD	Inc.	Azim	TVD	SSTVD	VS	NS	EW	Longitude	Latitude	Easting	Northing	DLS	Tool Face
SHL	0.00	0.00	179.62	0.00	-3399.00	0.00	0.00	0.00	W 103 32 50.297	N 32 8 17.323	743302.00	414867.00		179.62
KOP Build 12"/100ft DLS	8982.55	0.00	179.62	8982.55	5583.55	0.00	0.00	0.00	W 103 32 50.297	N 32 8 17.323	743302.00	414867.00	0.00	179.62
Landing Point	9736.72	90.50	179.62	9460.00	6061.00	481.63	-481.62	3.24	W 103 32 50.300	N 32 8 12.557	743305.24	414385.39	12.00	24.62
PBHL	14474.52	90.50	179.62	9418.50	6019.50	5219.25	-5219.13	35.00	W 103 32 50.333	N 32 7 25.676	743337.00	409648.00	0.00	



Drawn By: JSHeller
Date Created: February 04, 2013 04:00:32 PM
Checked By:
Checked Date:
Approved By:
Approved Date:



EOG Vaca 11 Fed Com 1H Rev0 mcs 04Feb13 Proposal Geodetic Report



(Def Plan)

Report Date: February 04, 2013 - 03:57 PM
Client: Eog Resources
Field: NM Lea County (NAD 27)
Structure / Slot: EOG Vaca 11 Fed Com 1H / EOG Vaca 11 Fed Com 1H
Well: EOG Vaca 11 Fed Com 1H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: EOG Vaca 11 Fed Com 1H Rev0 mcs 04Feb13
Survey Date: February 04, 2013
Tort / AHD / DDI / ERD Ratio: 90.504 * / 5219.248 ft / 5.859 / 0.552
Coordinate Reference System: NAD27 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 8' 17.32338", W 103° 32' 50.29698"
Location Grid N/E Y/X: N 414867.000 ftUS, E 743302.000 ftUS
CRS Grid Convergence Angle: 0.4182 °
Grid Scale Factor: 0.99997689

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 179.616 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 3399.000 ft above
Seabed / Ground Elevation: 3369.000 ft above
Magnetic Declination: 7.470 °
Total Gravity Field Strength: 998.4826mgn (9.80665 Based)
Total Magnetic Field Strength: 48384.322 nT
Magnetic Dip Angle: 60.028 °
Declination Date: February 04, 2013
Magnetic Declination Model: BGGM 2012
North Reference: Grid North
Grid Convergence Used: 0.4182 °
Total Corr Mag North->Grid North: 7.0514 °

Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
EOG Vaca 11 Fed Com 1H - SHL	0.00	0.00	179.62	0.00	0.00	0.00	0.00	N/A	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	100.00	0.00	179.62	100.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	200.00	0.00	179.62	200.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	300.00	0.00	179.62	300.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	400.00	0.00	179.62	400.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	500.00	0.00	179.62	500.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	600.00	0.00	179.62	600.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	700.00	0.00	179.62	700.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	800.00	0.00	179.62	800.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	900.00	0.00	179.62	900.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	1000.00	0.00	179.62	1000.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	1100.00	0.00	179.62	1100.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	1200.00	0.00	179.62	1200.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	1300.00	0.00	179.62	1300.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	1400.00	0.00	179.62	1400.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	1500.00	0.00	179.62	1500.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	1600.00	0.00	179.62	1600.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	1700.00	0.00	179.62	1700.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	1800.00	0.00	179.62	1800.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	1900.00	0.00	179.62	1900.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	2000.00	0.00	179.62	2000.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	2100.00	0.00	179.62	2100.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	2200.00	0.00	179.62	2200.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	2300.00	0.00	179.62	2300.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	2400.00	0.00	179.62	2400.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	2500.00	0.00	179.62	2500.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	2600.00	0.00	179.62	2600.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	2700.00	0.00	179.62	2700.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	2800.00	0.00	179.62	2800.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	2900.00	0.00	179.62	2900.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	3000.00	0.00	179.62	3000.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	3100.00	0.00	179.62	3100.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	3200.00	0.00	179.62	3200.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	3300.00	0.00	179.62	3300.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	3400.00	0.00	179.62	3400.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	3500.00	0.00	179.62	3500.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	3600.00	0.00	179.62	3600.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	3700.00	0.00	179.62	3700.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	3800.00	0.00	179.62	3800.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	3900.00	0.00	179.62	3900.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	4000.00	0.00	179.62	4000.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	4100.00	0.00	179.62	4100.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	4200.00	0.00	179.62	4200.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	4300.00	0.00	179.62	4300.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	4400.00	0.00	179.62	4400.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	4500.00	0.00	179.62	4500.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	4600.00	0.00	179.62	4600.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	4700.00	0.00	179.62	4700.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	4800.00	0.00	179.62	4800.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	4900.00	0.00	179.62	4900.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	5000.00	0.00	179.62	5000.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	5100.00	0.00	179.62	5100.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	5200.00	0.00	179.62	5200.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	5300.00	0.00	179.62	5300.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	5400.00	0.00	179.62	5400.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	5500.00	0.00	179.62	5500.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	5600.00	0.00	179.62	5600.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	5700.00	0.00	179.62	5700.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	5800.00	0.00	179.62	5800.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	5900.00	0.00	179.62	5900.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	6000.00	0.00	179.62	6000.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	6100.00	0.00	179.62	6100.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	6200.00	0.00	179.62	6200.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	6300.00	0.00	179.62	6300.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	6400.00	0.00	179.62	6400.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	6500.00	0.00	179.62	6500.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	6600.00	0.00	179.62	6600.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
	6700.00	0.00	179.62	6700.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	6800.00	0.00	179.62	6800.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	6900.00	0.00	179.62	6900.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	7000.00	0.00	179.62	7000.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	7100.00	0.00	179.62	7100.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	7200.00	0.00	179.62	7200.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	7300.00	0.00	179.62	7300.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	7400.00	0.00	179.62	7400.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	7500.00	0.00	179.62	7500.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	7600.00	0.00	179.62	7600.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	7700.00	0.00	179.62	7700.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	7800.00	0.00	179.62	7800.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	7900.00	0.00	179.62	7900.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	8000.00	0.00	179.62	8000.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	8100.00	0.00	179.62	8100.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	8200.00	0.00	179.62	8200.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	8300.00	0.00	179.62	8300.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	8400.00	0.00	179.62	8400.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	8500.00	0.00	179.62	8500.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	8600.00	0.00	179.62	8600.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	8700.00	0.00	179.62	8700.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	8800.00	0.00	179.62	8800.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	8900.00	0.00	179.62	8900.00	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
KOP Build 12"/100ft DLS	8982.55	0.00	179.62	8982.55	0.00	0.00	0.00	0.00	414867.00	743302.00	N 32 8 17.32	W 103 32 50.30
	9000.00	2.09	179.62	9000.00	0.32	-0.32	0.00	12.00	414866.68	743302.00	N 32 8 17.32	W 103 32 50.30
	9100.00	14.09	179.62	9098.82	14.37	-14.37	0.10	12.00	414852.63	743302.10	N 32 8 17.18	W 103 32 50.30
	9200.00	26.09	179.62	9192.56	48.67	-48.67	0.33	12.00	414818.34	743302.33	N 32 8 16.84	W 103 32 50.30
	9300.00	38.09	179.62	9277.12	101.70	-101.70	0.68	12.00	414785.30	743302.68	N 32 8 16.32	W 103 32 50.30
	9400.00	50.09	179.62	9348.81	171.16	-171.15	1.15	12.00	414695.85	743303.15	N 32 8 15.63	W 103 32 50.30
	9500.00	62.09	179.62	9404.49	254.00	-253.99	1.71	12.00	414613.01	743303.71	N 32 8 14.81	W 103 32 50.30
	9600.00	74.09	179.62	9441.73	346.61	-346.60	2.33	12.00	414520.41	743304.33	N 32 8 13.89	W 103 32 50.30
	9700.00	86.09	179.62	9458.91	444.94	-444.93	2.99	12.00	414422.08	743304.99	N 32 8 12.92	W 103 32 50.30
Landing Point	9736.72	90.50	179.62	9460.00	481.63	-481.62	3.24	12.00	414385.39	743305.24	N 32 8 12.56	W 103 32 50.30
	9800.00	90.50	179.62	9459.44	544.91	-544.90	3.66	0.00	414322.11	743305.66	N 32 8 11.93	W 103 32 50.30
	9900.00	90.50	179.62	9458.57	644.91	-644.89	4.33	0.00	414222.12	743306.33	N 32 8 10.94	W 103 32 50.30
	10000.00	90.50	179.62	9457.70	744.90	-744.89	5.01	0.00	414122.13	743307.01	N 32 8 9.95	W 103 32 50.30
	10100.00	90.50	179.62	9456.83	844.90	-844.88	5.68	0.00	414022.14	743307.68	N 32 8 8.96	W 103 32 50.30
	10200.00	90.50	179.62	9455.95	944.90	-944.88	6.35	0.00	413922.15	743308.35	N 32 8 7.97	W 103 32 50.30
	10300.00	90.50	179.62	9455.08	1044.89	-1044.87	7.02	0.00	413822.16	743309.02	N 32 8 6.98	W 103 32 50.30
	10400.00	90.50	179.62	9454.21	1144.89	-1144.86	7.69	0.00	413722.17	743309.69	N 32 8 5.99	W 103 32 50.30
	10500.00	90.50	179.62	9453.33	1244.89	-1244.86	8.36	0.00	413622.17	743310.36	N 32 8 5.00	W 103 32 50.30
	10600.00	90.50	179.62	9452.46	1344.88	-1344.85	9.03	0.00	413522.18	743311.03	N 32 8 4.01	W 103 32 50.30
	10700.00	90.50	179.62	9451.58	1444.88	-1444.85	9.71	0.00	413422.19	743311.71	N 32 8 3.03	W 103 32 50.30
	10800.00	90.50	179.62	9450.71	1544.87	-1544.84	10.38	0.00	413322.20	743312.38	N 32 8 2.04	W 103 32 50.30
	10900.00	90.50	179.62	9449.84	1644.87	-1644.83	11.05	0.00	413222.21	743313.05	N 32 8 1.05	W 103 32 50.30
	11000.00	90.50	179.62	9448.96	1744.87	-1744.83	11.72	0.00	413122.22	743313.72	N 32 8 0.06	W 103 32 50.30
	11100.00	90.50	179.62	9448.09	1844.86	-1844.82	12.39	0.00	413022.23	743314.39	N 32 7 59.07	W 103 32 50.30
	11200.00	90.50	179.62	9447.21	1944.86	-1944.82	13.06	0.00	412922.23	743315.06	N 32 7 58.08	W 103 32 50.30
	11300.00	90.50	179.62	9446.34	2044.86	-2044.81	13.73	0.00	412822.24	743315.73	N 32 7 57.09	W 103 32 50.30
	11400.00	90.50	179.62	9445.46	2144.85	-2144.80	14.40	0.00	412722.25	743316.40	N 32 7 56.10	W 103 32 50.30
	11500.00	90.50	179.62	9444.59	2244.85	-2244.80	15.07	0.00	412622.26	743317.07	N 32 7 55.11	W 103 32 50.30
	11600.00	90.50	179.62	9443.71	2344.84	-2344.79	15.75	0.00	412522.27	743317.74	N 32 7 54.12	W 103 32 50.30
	11700.00	90.50	179.62	9442.84	2444.84	-2444.78	16.42	0.00	412422.28	743318.42	N 32 7 53.13	W 103 32 50.30
	11800.00	90.50	179.62	9441.96	2544.84	-2544.78	17.09	0.00	412322.29	743319.09	N 32 7 52.14	W 103 32 50.30
	11900.00	90.50	179.62	9441.09	2644.83	-2644.77	17.76	0.00	412222.29	743319.76	N 32 7 51.15	W 103 32 50.30
	12000.00	90.50	179.62	9440.21	2744.83	-2744.77	18.43	0.00	412122.30	743320.43	N 32 7 50.16	W 103 32 50.30
	12100.00	90.50	179.62	9439.34	2844.82	-2844.76	19.10	0.00	412022.31	743321.10	N 32 7 49.17	W 103 32 50.30
	12200.00	90.50	179.62	9438.46	2944.82	-2944.75	19.77	0.00	411922.32	743321.77	N 32 7 48.18	W 103 32 50.30
	12300.00	90.50	179.62	9437.58	3044.82	-3044.75	20.44	0.00	411822.33	743322.44	N 32 7 47.19	W 103 32 50.30
	12400.00	90.50	179.62	9436.71	3144.81	-3144.74	21.11	0.00	411722.34	743323.11	N 32 7 46.20	W 103 32 50.30
	12500.00	90.50	179.62	9435.83	3244.81	-3244.74	21.78	0.00	411622.35	743323.78	N 32 7 45.21	W 103 32 50.30
	12600.00	90.50	179.62	9434.95	3344.81	-3344.73	22.45	0.00	411522.35	743324.45	N 32 7 44.22	W 103 32 50.30
	12700.00	90.50	179.62	9434.08	3444.80	-3444.72	23.12	0.00	411422.36	743325.12	N 32 7 43.23	W 103 32 50.30
	12800.00	90.50	179.62	9433.20	3544.80	-3544.72	23.79	0.00	411322.37	743325.79	N 32 7 42.25	W 103 32 50.30
	12900.00	90.50	179.62	9432.32	3644.79	-3644.71	24.46	0.00	411222.38	743326.46	N 32 7 41.26	W 103 32 50.30
	13000.00	90.50	179.62	9431.45	3744.79	-3744.71	25.13	0.00	411122.39	743327.13	N 32 7 40.27	W 103 32 50.30
	13100.00	90.50	179.62	9430.57	3844.79	-3844.70	25.80	0.00	411022.40	743327.80	N 32 7 39.28	W 103 32 50.30
	13200.00	90.50	179.62	9429.69	3944.78	-3944.69	26.47	0.00	410922.41	743328.47	N 32 7 38.29	W 103 32 50.30
	13300.00	90.50	179.62	9428.82	4044.78	-4044.69	27.14	0.00	410822.41	743329.14	N 32 7 37.30	W 103 32 50.30
	13400.00	90.50	179.62	9427.94	4144.77	-4144.68	27.81	0.00	410722.42	743329.81	N 32 7 36.31	W 103 32 50.30
	13500.00	90.50	179.62	9427.06	4244.77	-4244.68	28.48	0.00	410622.43	743330.48	N 32 7 35.32	W 103 32 50.30
	13600.00	90.50	179.62	9426.18	4344.77	-4344.67	29.15	0.00	410522.44	743331.15	N 32 7 34.33	W 103 32 50.30
	13700.00	90.50	179.62	9425.30	4444.76	-4444.66	29.82	0.00	410422.45	743331.82	N 32 7 33.34	W 103 32 50.30
	13800.00	90.50	179.62	9424.43	4544.76	-4544.66	30.49	0.00	410322.46	743332.49	N 32 7 32.35	W 103 32 50.30
	13900.00	90.50	179.62	9423.55	4644.76	-4644.65	31.16	0.00	410222.47	743333.16	N 32 7 31.36	W 103 32 50.30
	14000.00	90.50	179.62	9422.67	4744.75	-4744.64	31.83	0.00	410122.47	743333.82	N 32 7 30.37	W 103 32 50.30
	14100.00	90.50	179.62	9421.79	4844.75	-4844.64	32.50	0.00	410022.48	743334.49	N 32 7 29.38	W 103 32 50.30
	14200.00	90.50	179.62	9420.91	4944.74	-4944.63	3					

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS ("/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
		0.000	30.000		1/100.000	30.000	30.000	SLB_MWD-STD-Depth Only			Original Borehole / EOG Vaca 11 Fed Com 1H Rev0 mcs 04Feb13	
		30.000	14474.515		1/100.000	30.000	30.000	SLB_MWD-STD			Original Borehole / EOG Vaca 11 Fed Com 1H Rev0 mcs 04Feb13	

EOG RESOURCES, INC.
VACA 11 FED COM #1H

ATTACHMENT TO EXHIBIT #1

1. Wear ring to be properly installed in head.
2. Blow out preventer and all fittings must be in good condition, 5000 psi W.P. minimum. Exhibit #1.
3. All fittings to be flanged
4. Safety valve must be available on rig floor at all times with proper connections, valve to be full bore 5000 psi W.P. minimum.
5. All choke and fill lines to be securely anchored especially ends of choke lines.
6. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.
7. Kelly cock on kelly.
8. Extension wrenches and hand wheels to be properly installed.
9. Blow out preventer control to be located as close to driller's position as feasible.
10. Blow out preventer closing equipment to include minimum 40-gallon accumulator, two independent sources of pump power on each closing unit installation, and meet all API specifications.

Exhibit 1

EOG Resources

10M BOPE

Rig Floor

1. 13 5/8" Rotating Head
2. Hydril 13 5/8" 5,000 PSI WP GK Annular Preventor
3. 13 5/8" Cameron Type "U" 10,000 PSI WP Ram Preventors
4. 2 1/16" - 10,000 PSI WP Check Valve
5. 10,000 PSI WP - 1502 Union to kill line
6. 2 1/16" - 10,000 PSI WP Manual Valves
7. 13 5/8" 3,000 PSI WP x 13 5/8" 5,000 PSI WP Spacer Spool
8. 4 1/16" 10,000 PSI WP HCR Valve
9. 4 1/16" 10,000 PSI WP Manual Valve
10. 8" OD x 4" ID 10,000 PSI WP Flex Choke Line
11. DSA - 13 5/8" 10,000 PSI WP x 13 5/8" 5,000 PSI WP
12. Mud Cross - 13 5/8" 10,000 PSI WP
13. Blind Rams
14. Pipe Rams
15. 13 5/8" 5,000 PSI WP Spacer Spools
16. Flow Line
17. 2" Fill Line

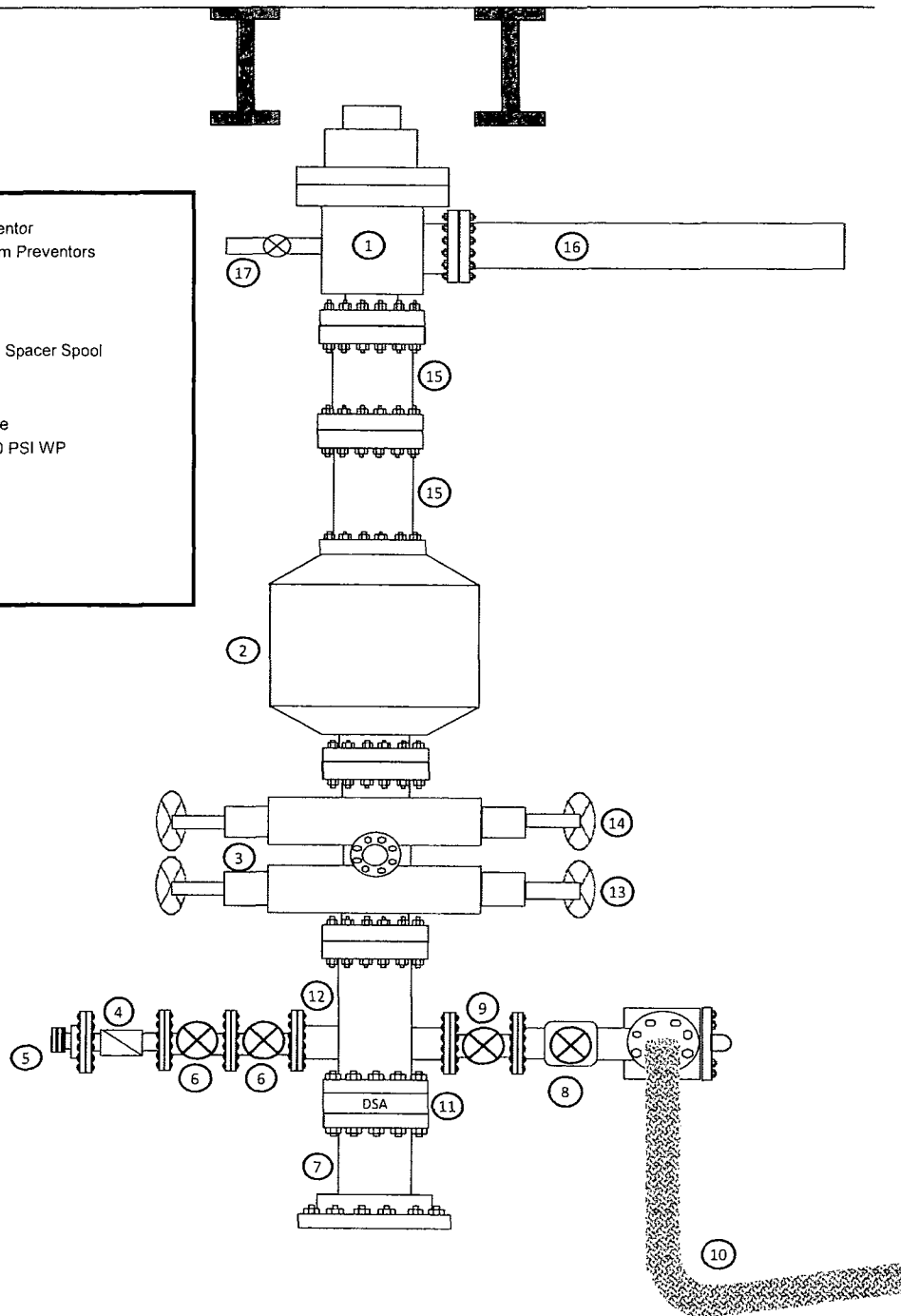
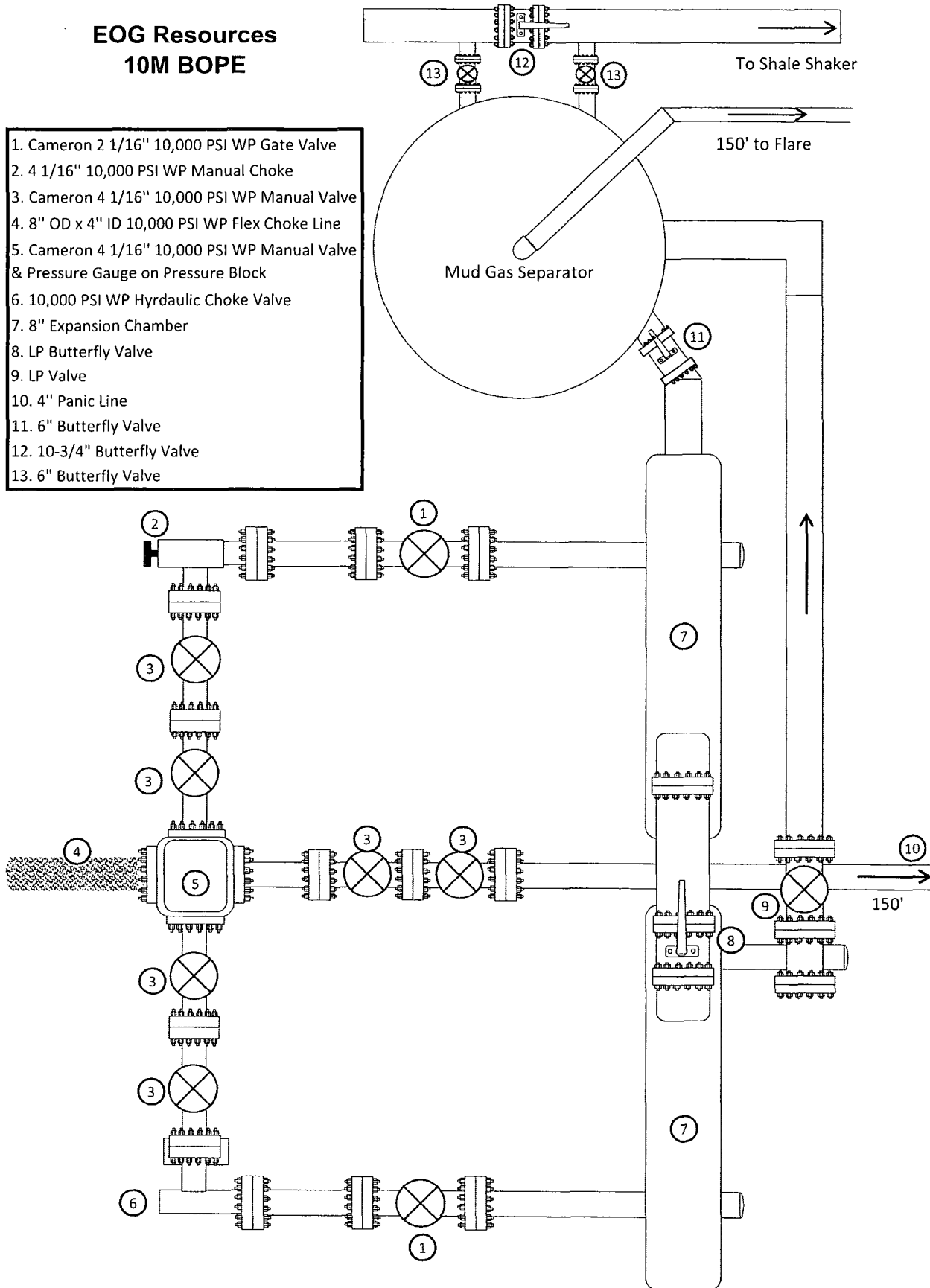


Exhibit 1a

EOG Resources 10M BOPE

1. Cameron 2 1/16" 10,000 PSI WP Gate Valve
2. 4 1/16" 10,000 PSI WP Manual Choke
3. Cameron 4 1/16" 10,000 PSI WP Manual Valve
4. 8" OD x 4" ID 10,000 PSI WP Flex Choke Line
5. Cameron 4 1/16" 10,000 PSI WP Manual Valve & Pressure Gauge on Pressure Block
6. 10,000 PSI WP Hyrdraulic Choke Valve
7. 8" Expansion Chamber
8. LP Butterfly Valve
9. LP Valve
10. 4" Panic Line
11. 6" Butterfly Valve
12. 10-3/4" Butterfly Valve
13. 6" Butterfly Valve



Manufacturer: Midwest Hose & Specialty

Serial Number: SN#90067

Length: 35'

Size: OD = 8" ID = 4"

Ends: Flanges Size: 4-1/16"

WP Rating: 10,000 psi Anchors required by manufacturer: No

M I D W E S T
HOSE AND SPECIALTY INC.

INTERNAL HYDROSTATIC TEST REPORT			
Customer: CACTUS		P.O. Number: RIG #123 Asset # M10761	
HOSE SPECIFICATIONS			
Type: CHOKER LINE		Length: 35'	
I.D. 4" INCHES		O.D. 8" INCHES	
WORKING PRESSURE 10,000 PSI	TEST PRESSURE 15,000 PSI	BURST PRESSURE PSI	
COUPLINGS			
Type of End Fitting 4 1/16 10K FLANGE			
Type of Coupling: SWEDGED		MANUFACTURED BY MIDWEST HOSE & SPECIALTY	
PROCEDURE			
<i>Hose assembly pressure tested with water at ambient temperature.</i>			
TIME HELD AT TEST PRESSURE 1 MIN.		ACTUAL BURST PRESSURE: 0 PSI	
COMMENTS: SN#90087 M10761 Hose is covered with stainless steel armour cover and wrapped with fire resistant vermiculite coated fiberglass insulation rated for 1500 degrees complete with lifting eyes			
Date: 6/6/2011	Tested By: BOBBY FINK		Approved: MENDI JACKSON



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Graph

Customer: CACTUS

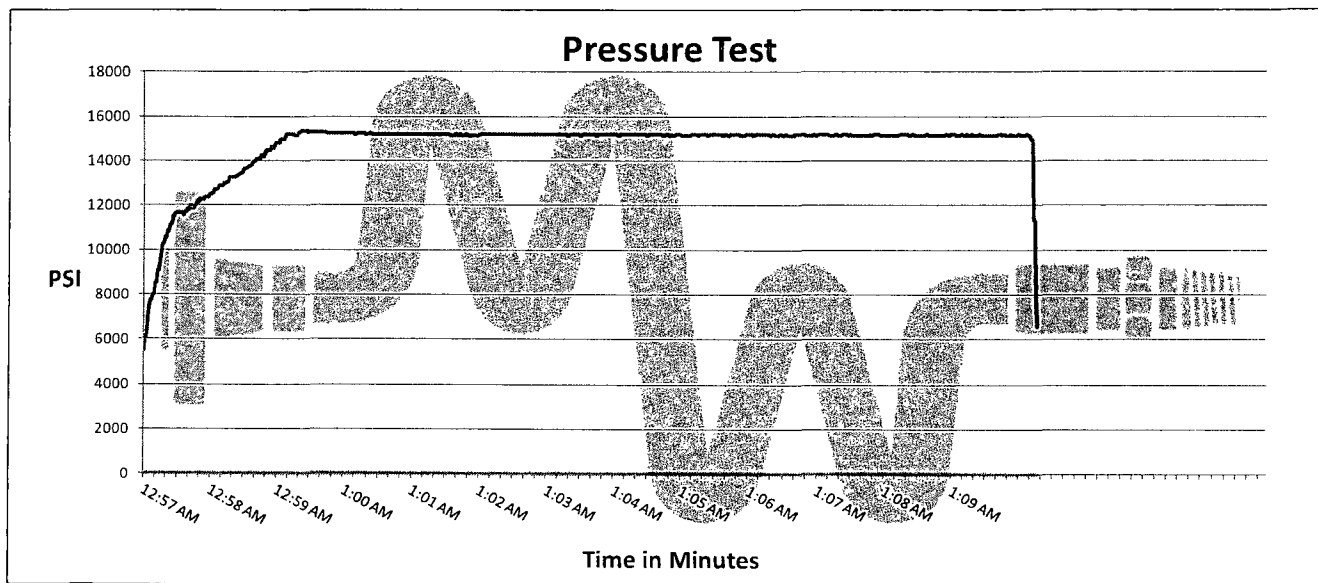
SALES ORDER# 90067

Hose Specifications

<u>Hose Type</u>	<u>Length</u>
C & K	35'
<u>I.D.</u>	<u>O.D.</u>
4"	8"
<u>Working Pressure</u>	<u>Burst Pressure</u>
10000 PSI	Standard Safety Multiplier Applies

Verification

<u>Type of Fitting</u>	<u>Coupling Method</u>
4 1/16 10K	Swage
<u>Die Size</u>	<u>Final O.D.</u>
6.62"	6.68"
<u>Hose Serial #</u>	<u>Hose Assembly Serial #</u>
	90067



Test Pressure
15000 PSI

Time Held at Test Pressure
11 1/4 Minutes

Actual Burst Pressure

Peak Pressure
15439 PSI

Comments: Hose assembly pressure tested with water at ambient temperature.

Tested By: Bobby Fink

Approved By: Mendi Jackson

Bobby Fink

Mendi Jackson